# Cost Analysis, WSARA, and the Road Ahead

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**Deputy Assistant Secretary of the Navy (Cost & Economics)**
**Executive Director, Naval Center for Cost Analysis**

**2 June 2010**

# Agenda

- **Public perceptions on cost growth and what Congress did about it**
- **Impacts of Recent Policy Changes on DON Cost Community**
- **Improvement Initiatives**
  - DON Cost Estimating Best Practices and Standards
  - Probability of Program Success Cost Estimating Metrics
  - Technical/Programmatic Baseline Policy for NAVAIR Estimates
  - Navy-Industry Cost IPT
  - NATO / Partnership for Peace Joint Costing Efforts
  - Training
- **Challenges for the Road Ahead**

# Public View of DoD Program Cost Growth

The Washington Post

March 31, 2009: **Development costs for the Pentagon's major weapons systems soared last year, helping drive overruns that are "staggering," the Government Accountability Office said in a report released yesterday. Overall, the cost overruns associated with the military's major weapons ...”total near $300 billion, and the average program delay has stretched from 21 to 22 months,”**

**The figures reflect a weapons development and procurement system that is woefully broken... “Pentagon planners don't do a good enough job of analyzing those requirements to understand whether they have the technologies and designs to build to them," GAO analyst Michael J. Sullivan said.**

# Presidential Direction

***". . . it is essential that the Federal Government have the capacity to c out robust and thorough managem and oversight of its contracts in o to achieve programmatic goals, av significant overcharges, and curb wasteful spending. A GAO study year of 95 major defense acquisit projects found cost overruns of 26 percent, totaling $295 billion the life of the projects. Improve contract oversight could reduce sums significantly.***

***". . . the Federal Government shall ensure that taxpayer dollars are not spent on contracts that are wasteful, inefficient, subject to misuse, or otherwise not well designed to serve the Federal Government's needs and to manage the risk associated with the goods and services being procured. . . .***

THE WHITE HOUSE
WASHINGTON

March 4, 2009

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: Government Contracting

The Federal Government has an overriding obligation to American taxpayers. It should perform its functions efficiently and effectively while ensuring that its actions result in the best value for the taxpayers.

Since 2001, spending on Government contracts has more than doubled, reaching over $500 billion in 2008. During this same period, there has been a significant increase in the dollars awarded without full and open competition and an increase in the dollars obligated through cost-reimbursement contracts. Between fiscal years 2000 and 2008, for example, dollars obligated under cost-reimbursement contracts nearly doubled, from $71 billion in 2000 to $135 billion in 2008. Reversing these trends away from full and open competition and toward cost-reimbursement contracts could result in savings of billions of dollars each year for the American taxpayer.

Excessive reliance by executive agencies on sole-source contracts (or contracts with a limited number of sources) and cost-reimbursement contracts creates a risk that taxpayer funds will be spent on contracts that are wasteful, inefficient, subject to misuse, or otherwise not well designed to serve the needs of the Federal Government or the interests of the American taxpayer. Reports by agency Inspectors General, the Government Accountability Office (GAO), and other independent reviewing bodies have shown that noncompetitive and cost-reimbursement contracts have been misused, resulting in wasted taxpayer resources, poor contractor performance, and inadequate accountability for results.

When awarding Government contracts, the Federal Government must strive for an open and competitive process. However, executive agencies must have the flexibility to tailor contracts to carry out their missions and achieve the policy goals of the Government. In certain exigent circumstances, agencies may need to consider whether a competitive process will not accomplish

governmental outsourcing for services is and is
, consistent with section 321 of Public Law 110-
501 note).¶
rtments and agencies shall carry out the
his memorandum to the extent permitted by law.
is not intended to, and does not, create any
, substantive or procedural, enforceable at law
any party against the United States, its
ncies, or entities, its officers, employees, or
her person.¶
MB is hereby authorized and directed to publish
n the Federal Register.

# SECDEF Mandate for Reform

*"Fully reforming defense acquisition also requires recognizing the challenges of today's battlefield and constantly changing adversary. This requires an acquisition system that can perform with greater urgency and agility. We need greater funding flexibility and the ability to streamline our requirements and acquisition execution procedures.*

*The perennial procurement and contracting cycle – going back many decades – of adding layer upon layer of cost and complexity onto fewer and fewer platforms that take longer and longer to build must come to an end. There is broad agreement on the need for acquisition and contracting reform in the Department of Defense. There have been enough studies. Enough hand-wringing. Enough rhetoric. Now is the time for action."*

*Robert Gates, Secretary of Defense,*

*Defense Budget Recommendation Statement, April 6, 2009*

# *View from the Congress*

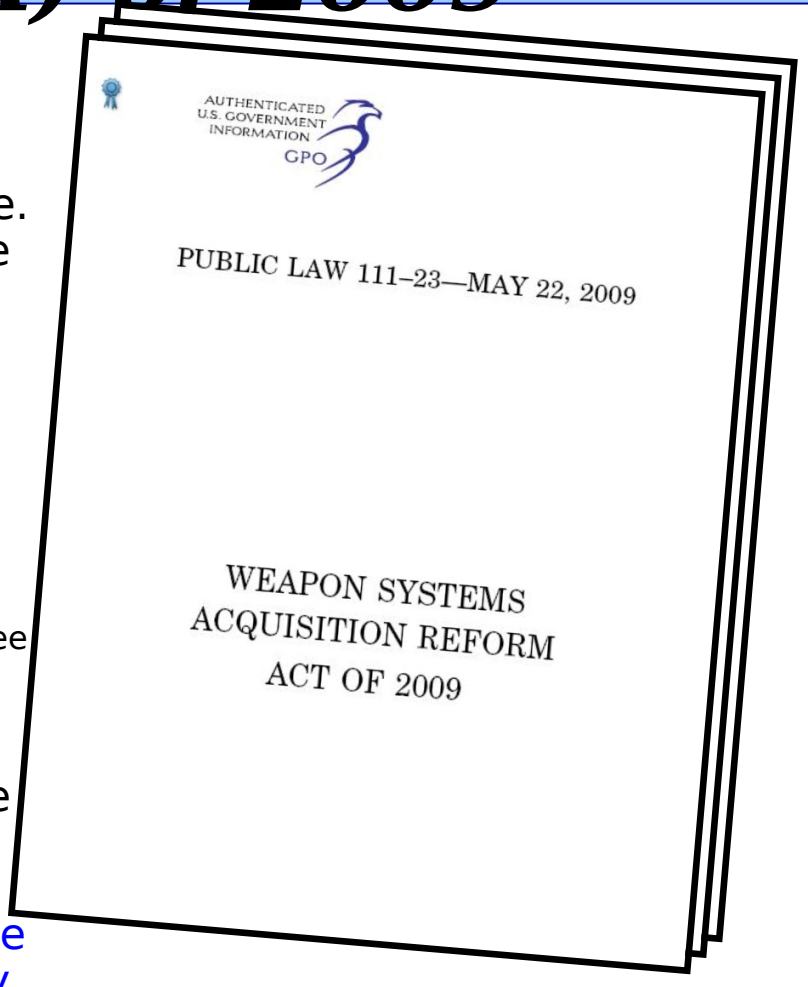
- *Congress's Perception:*
  - **Nunn McCurdy law in place since 1982, but:**
    - Not that many consequences over time
    - Cost growth continued
    - Perception of "Rubber Baselines" & lack of discipline

- *Reaction: Mandatory Discipline*
  - **FY06 NDAA**
    - Tightened Nunn McCurdy rules and measurements
    - Section 2366, Title 10, required certification of MDAPs at MS B
  - **FY07 NDAA**
    - Added three more criteria for MS B certification
  - **FY08 NDAA**
    - Required certification at MS A (costs understood, non-duplicative, valid requirement)
  - **FY09 NDAA**
    - Updated section 2366 for technical corrections

# Weapon Systems Acquisition Reform Act (WSARA) of 2009

"The key to successful acquisition programs is getting things right from the start with sound systems engineering, cost estimating, and developmental testing early in the program cycle. The bill that we are introducing today will require the Department of Defense to take the steps needed to put major defense acquisition programs on a sound footing from the outset. If these changes are successfully implemented, they should help our acquisition programs avoid future cost overruns, schedule delays, and performance problems."

–Senator Carl Levin, Chairman, Senate Armed Services Committee




"The Weapon System Acquisition Reform Act of 2009 is an important step in efforts to reform the defense acquisition progress. This legislation is needed to focus acquisition and procurement on emphasizing systems engineering; more effective upfront planning and management of technology risk; and growing the acquisition workforce to meet program objectives."

–Senator John McCain, Ranking Member, Senate Armed Services Committee

# Weapon Systems Acquisition Reform Act of 2009

*"The purpose of this law will be to limit cost overruns before they spiral out of control. It will strengthen oversight and accountability by appointing officials who will be charged with closely monitoring the weapons systems we're purchasing to ensure that costs are controlled. If the cost of certain defense projects continue to grow year after year, those projects will be closely reviewed, and if they don't provide the value we need, they will be terminated. This law will also enhance competition and end conflicts of interest in the weapons acquisitions process so that American taxpayers and the American military can get the best weapons at the lowest cost."*

*Signing Statement*
*May 22, 2009*

BARACK OBAMA

# Introduction to WSARA 2009

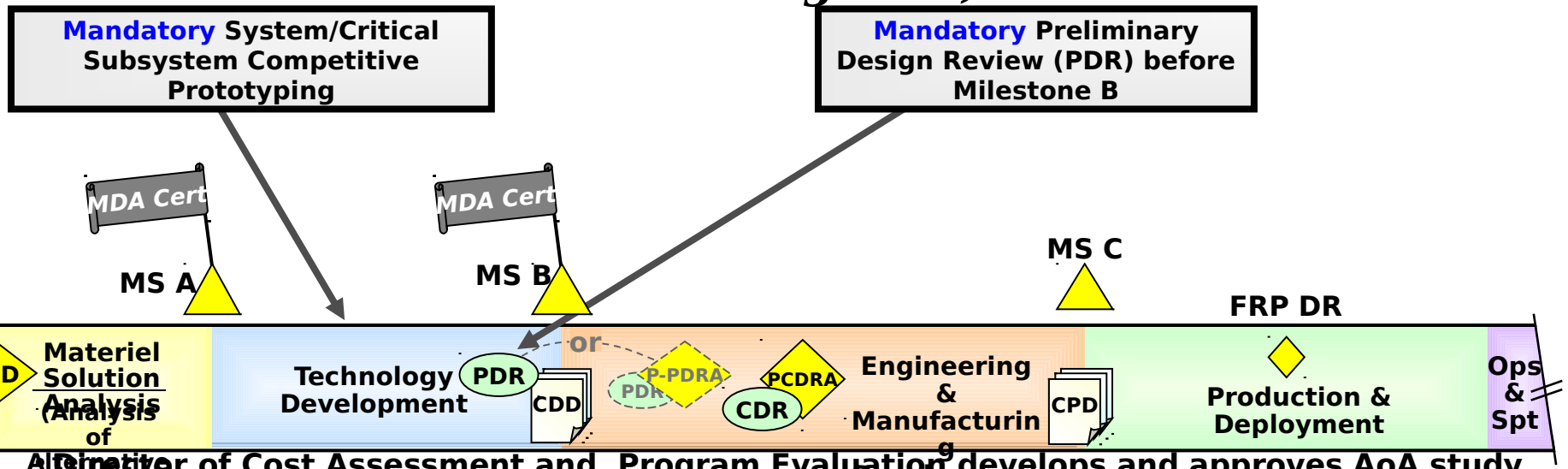
- ***Weapon Systems Acquisition Reform Act of 2009 signed into law May 22***
  - *Passed in Senate 93 - 0, passed in House 411 - 0*
  - *Law took effect immediately*
  - *Covers MDAP* **and** *MAIS programs*
- ***Key Elements of WSARA***
  - *Changes to Acquisition Procedures*
    - *Expansion of Milestone certifications, review of MDAP/MAIS cost estimates, critical cost growth breach requirements*
  - *Directed Action*
    - *Catch-up certifications, reports to Congress*
  - *Chartering Direction*
    - *Cost Analysis and Program Evaluation; Director of Systems Engineering; Performance Assessment and Root Cause Analysis*

# Director, Cost Assessment and Program Evaluation (CAPE)

- **Appointed by the President, with advice and consent of Senate**
- **Two Deputy Directors**
  - Cost Assessment
  - Program Evaluation
  - No restrictions: Political, career, military
- **Responsible for**
  - Cost estimation and analysis for acquisition programs
  - The planning and programming phases of PPBES
  - Resource analysis of JROC requirements
  - Analysis of Alternatives study guidance
  - Review, analysis and evaluation of programs
  - Assessments of intelligence programs
  - Assessments of alternatives for acquisition programs
  - Leading the development of the CAPE workforce of the department
  - Leading the development of improved tools and data

# DoD Acquisition in WSARA 2009

## (Statute Applicable to Major Defense Acquisition Programs)




- Director of Cost Assessment and Program Evaluation develops and approves AoA study guidance
- Dir, SE, reviews and approves the Systems Engineering Plan
- Dir, DT&E, reviews and approves the DT&E plans in the Test and Evaluation Strategy and the Test and Evaluation Master Plan
- DDR&E independently reviews, assesses, and reports on the technological maturity and integration risk of MDAP technologies
- MDAP Redefined:
  … eventual total expenditure for RDT&E of more than $365M

  … eventual total expenditure for procurement, ***including all planned increments***, of more than $2.19B

# *MS Certifications in WSARA 2009*

- *Amends MS A (section 2366a) Certification Process*
  - Invokes Nunn-McCurdy "like" process for pre-MS B pre-MDAPs
  - Retroactively applies certification criteria to post-MS A programs that began prior to enactment of the 2366a certification requirements, but have not yet received MS B approval.
- *Amends MS B (section 2366b) Certification Process*
  - Retroactively applies certification criteria to post-MS B programs that began prior to enactment of the 2366b certification requirements, but have not yet received MS C approval.
- *Creates SEC-DEF designated official for Program Assessment and Root Cause Analysis*
- *Strengthens Nunn McCurdy Process*

# WSARA Expanded Certification Criteria

- *Milestone A – 2366a – 5 Criteria*
  - Fulfills initial capabilities document
  - Executed by entity with relevant core competency
  - Any duplication in capability necessary/appropriate
  - AoA performed consistent with CAPE guidance
  - Cost estimate submitted w/ CAPE concurrence and resources required consistent w/JROC priority
- *Milestone B – 2366b – 10 Criteria*
  - Affordable considering alternative systems
  - Affordable unit cost and total cost in context of total DoD resources
  - Reasonable cost and schedule estimates have been developed
  - Funding consistent with cost estimate is available in FYDP
  - Demonstrates high likelihood of success from PDR assessment
  - Appropriate market research conducted prior to technology development
  - DoD has completed an AoA
  - JROC has accomplished duties, including analysis of operational requirements
  - Technology has been demonstrated in a relevant environment
  - Complies with all relevant DoD policies, regulations and directives
- *Nunn-McCurdy (Post Milestone B) – 5 Criteria*
  - Continuation of program essential to national security
  - No alternatives with acceptable capability at less cost
  - New estimates of unit cost are reasonable
  - Program is higher priority than programs whose funding must be reduced
  - Management structure adequate to manage and control cost

# Impact of WSARA on MS A Certification

- Amends MS A certification process
  - Requires the PM to notify the MDA, if prior to a MS B, the total program cost grows by at least 25%, or the time required to reach IOC grows by more than 25%.
- Invokes "Nunn-McCurdy" like review
  - MDA must consider termination
- Requires Report to Congress that:
  - Identifies the root causes of the cost or schedule growth;
  - Identifies appropriate acquisition performance measures for remainder of the development program; and
  - Includes **either**
    - a **written certification** stating that the program is essential to national security, there are no alternatives to the program that will provide acceptable military capability at less cost, the new estimates of the developmental cost or schedule, as appropriate, are reasonable, and the management structure for the program is adequate to manage and control program cost and schedule,
    - **or—**a **plan for terminating** the development of the program **or withdrawal of MS A approval.**
- Requires "Catch-up" certifications for programs not previously certified

# *Impact of WSARA on MS B Certification*

Amends Critical Cost Growth Reporting (Nunn-McCurdy) process:

- **Root cause analysis required for program; presumes termination with justification to Congress.**
- **If program is not terminated, but restructured:**
  - A certification and root cause analysis must be submitted to Congress;
  - Most recent MS Decision must be rescinded;
  - New MS approval must be granted. (New contractual actions are prohibited prior to new MS approval unless the MDA grants an exception to allow the restructure, without unnecessarily wasting resources.); and
  - Requires a report of all funding changes resulting from the cost growth, including reductions to other programs.

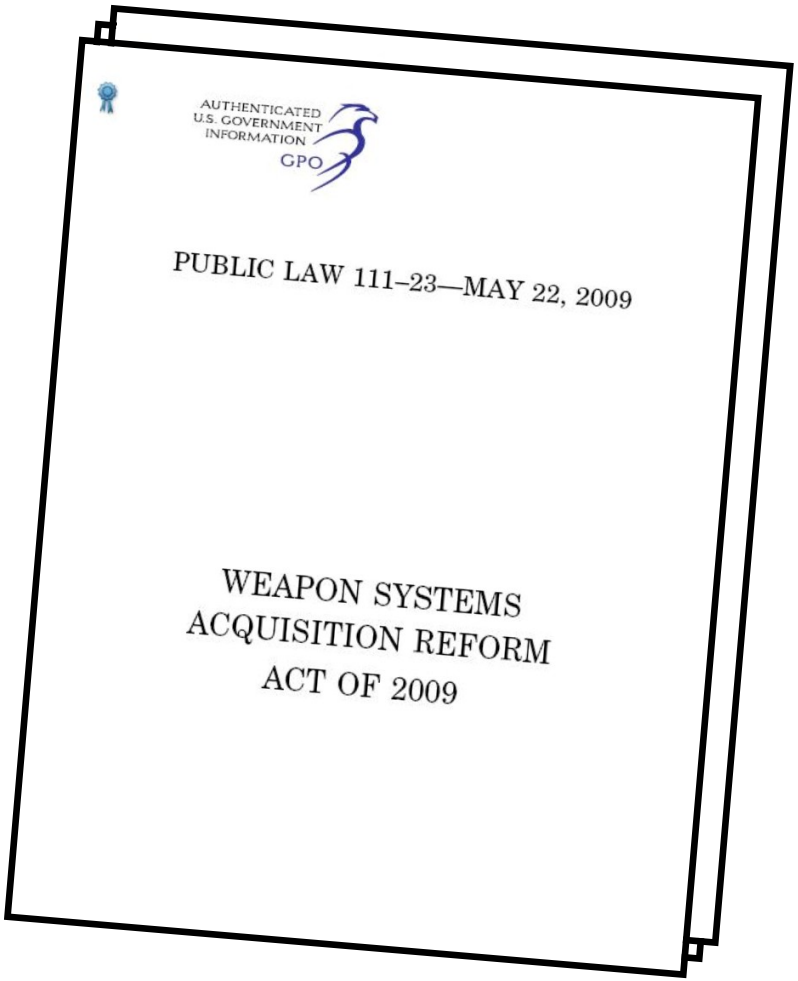
# WSARA Cost Growth Controls Summary

- *Post Milestone A – Total Acquisition Costs*
  - ***25% or more growth in cost or schedule***
  - ***WSARA adds additional breach requirements***
    - ***Previously no schedule metric or Congressional reporting requirement***
- *Post Milestone B – Nunn-McCurdy*
  - ***Growth in PAUC or APUC against APB per thresholds below***

| | "Significant" Breach | "Critical" Breach |
|---|---|---|
| Current Baseline Estimate | 15% | 25% |
| Original Baseline Estimate | 30% | 50% |

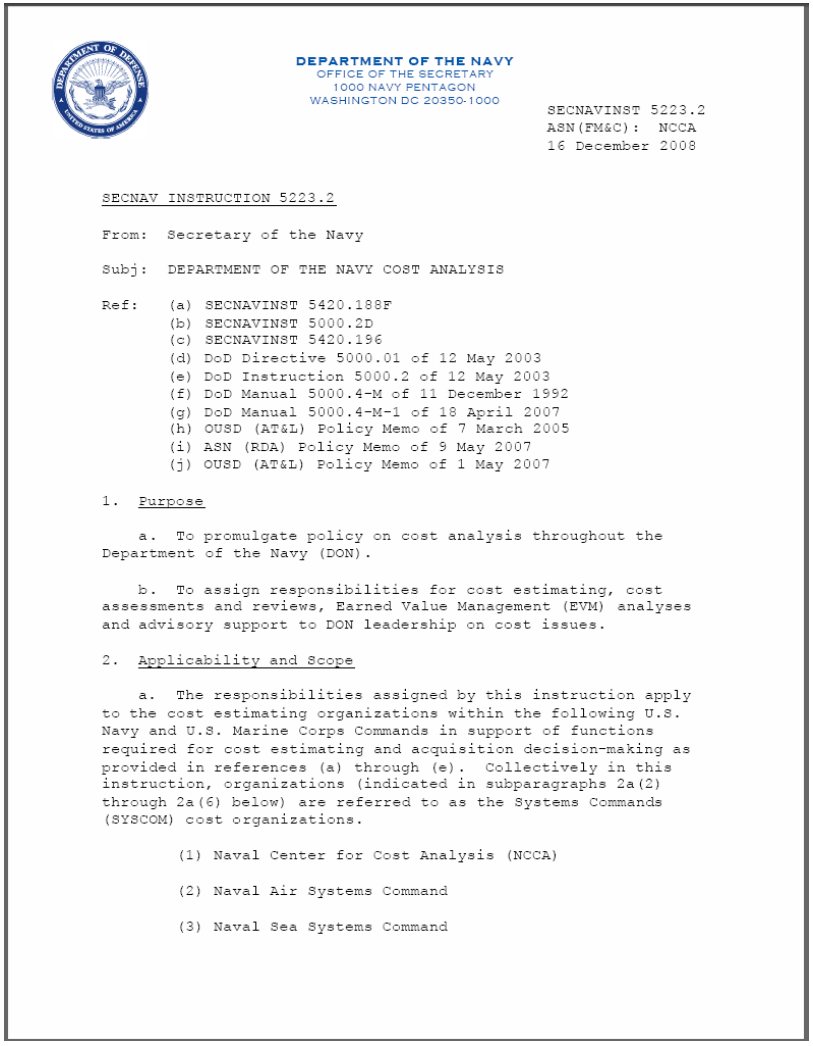
  - ***WSARA adds additional critical breach requirements***

# Impact of WSARA 2009 to DON Cost Estimating Community




- **Additional personnel resources needed**
  - Annual reviews and analysis to support certification requirements
    - Critical cost growth controls
  - Milestone A cost analysis
  - Required documentation of risk/uncertainty
  - Full funding requirement
  - O&S cost collection and reporting
  - EVM analysis
  - Support to PARCA root cause analysis
  - Support to annual CAPE reporting requirements
  - Supervisory and admin support

# DON Cost Analysis Policy: Increase Robustness, Inject Realism



DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SECNAVINST 5223.2
ASN(FM&C): NCCA
16 December 2008

SECNAV INSTRUCTION 5223.2

From: Secretary of the Navy

Subj: DEPARTMENT OF THE NAVY COST ANALYSIS

Ref: (a) SECNAVINST 5420.188F
(b) SECNAVINST 5000.2D
(c) SECNAVINST 5420.196
(d) DoD Directive 5000.01 of 12 May 2003
(e) DoD Instruction 5000.2 of 12 May 2003
(f) DoD Manual 5000.4-M of 11 December 1992
(g) DoD Manual 5000.4-M-1 of 18 April 2007
(h) OUSD (AT&L) Policy Memo of 7 March 2005
(i) ASN (RDA) Policy Memo of 9 May 2007
(j) OUSD (AT&L) Policy Memo of 1 May 2007

1. Purpose

a. To promulgate policy on cost analysis throughout the Department of the Navy (DON).

b. To assign responsibilities for cost estimating, cost assessments and reviews, Earned Value Management (EVM) analyses and advisory support to DON leadership on cost issues.

2. Applicability and Scope

a. The responsibilities assigned by this instruction apply to the cost estimating organizations within the following U.S. Navy and U.S. Marine Corps Commands in support of functions required for cost estimating and acquisition decision-making as provided in references (a) through (e). Collectively in this instruction, organizations (indicated in subparagraphs 2a(2) through 2a(6) below) are referred to as the Systems Commands (SYSCOM) cost organizations.

(1) Naval Center for Cost Analysis (NCCA)

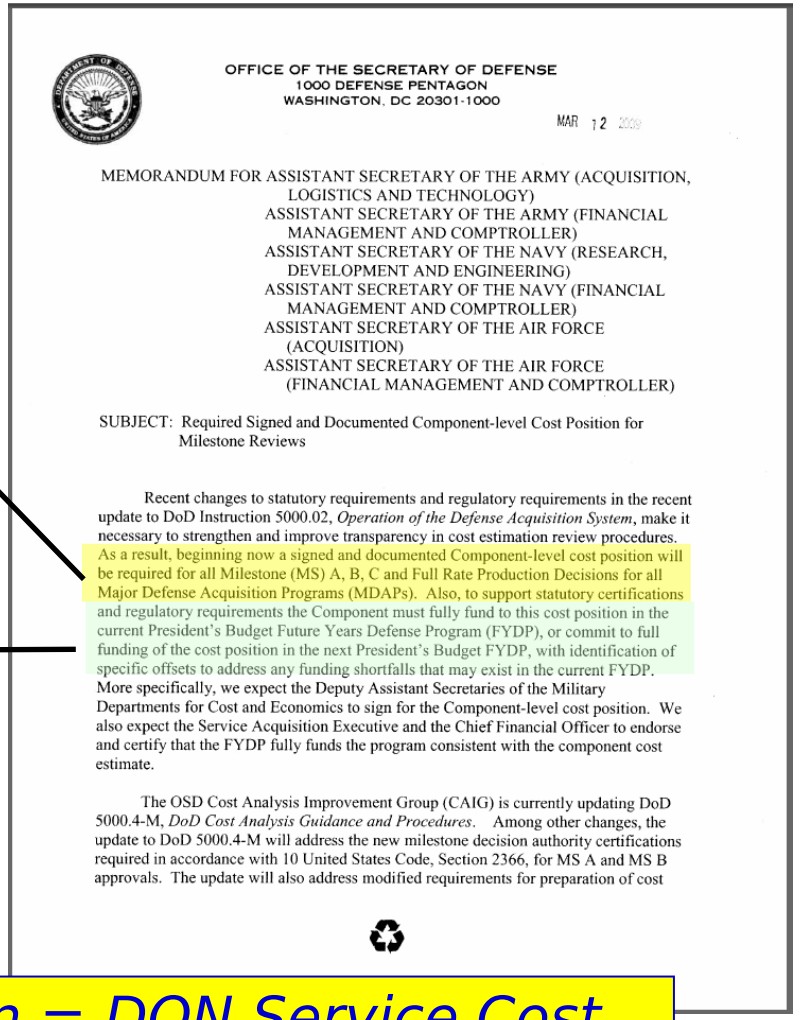
(2) Naval Air Systems Command

(3) Naval Sea Systems Command

- **SECNAVINST 5223.2, signed Dec 08**
  - SYSCOMs provide
    - Comprehensive coverage
      - **All programs**
      - **Estimates, O&S, EVM support**
  - NCCA
    - Advise at Acquisition Gate Reviews
    - Develop independent estimates for ACAT IC/IA
    - Assess SYSCOM estimates for ACAT ID programs
    - Provide independent risk assessment for IDs
    - Chair Cost Estimating Stakeholders Group
  - Program Managers
    - Use cost info; document differences
    - Obtain approval before outsourcing cost suppo
    - Obtain technical review of CARD
  - Senior Leadership
    - Use cost info
    - Adequately resource cost organizations

# Component Cost Position OSD Guidance – Mar 09

- From former OSD CAIG Chair and USD (AT&L) Director, ARA memo "Required Signed and Documented Component-level Cost Position for Milestone Reviews":
  - "A signed and documented Component-level cost position will be required for all MS A, B, C, and Full Rate Production Decisions"
  - "We expect the Deputy Assistant Secretaries of the Military Departments for Cost and Economics to sign for the Component-level cost position."
  - Service Acquisition Executive and the Chief Financial Officer to endorse and certify that the FYDP fully funds the program consistent with the component cost estimate



OFFICE OF THE SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

MAR 12 2009

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS AND TECHNOLOGY)
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT AND ENGINEERING)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE AIR FORCE (ACQUISITION)
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Required Signed and Documented Component-level Cost Position for Milestone Reviews

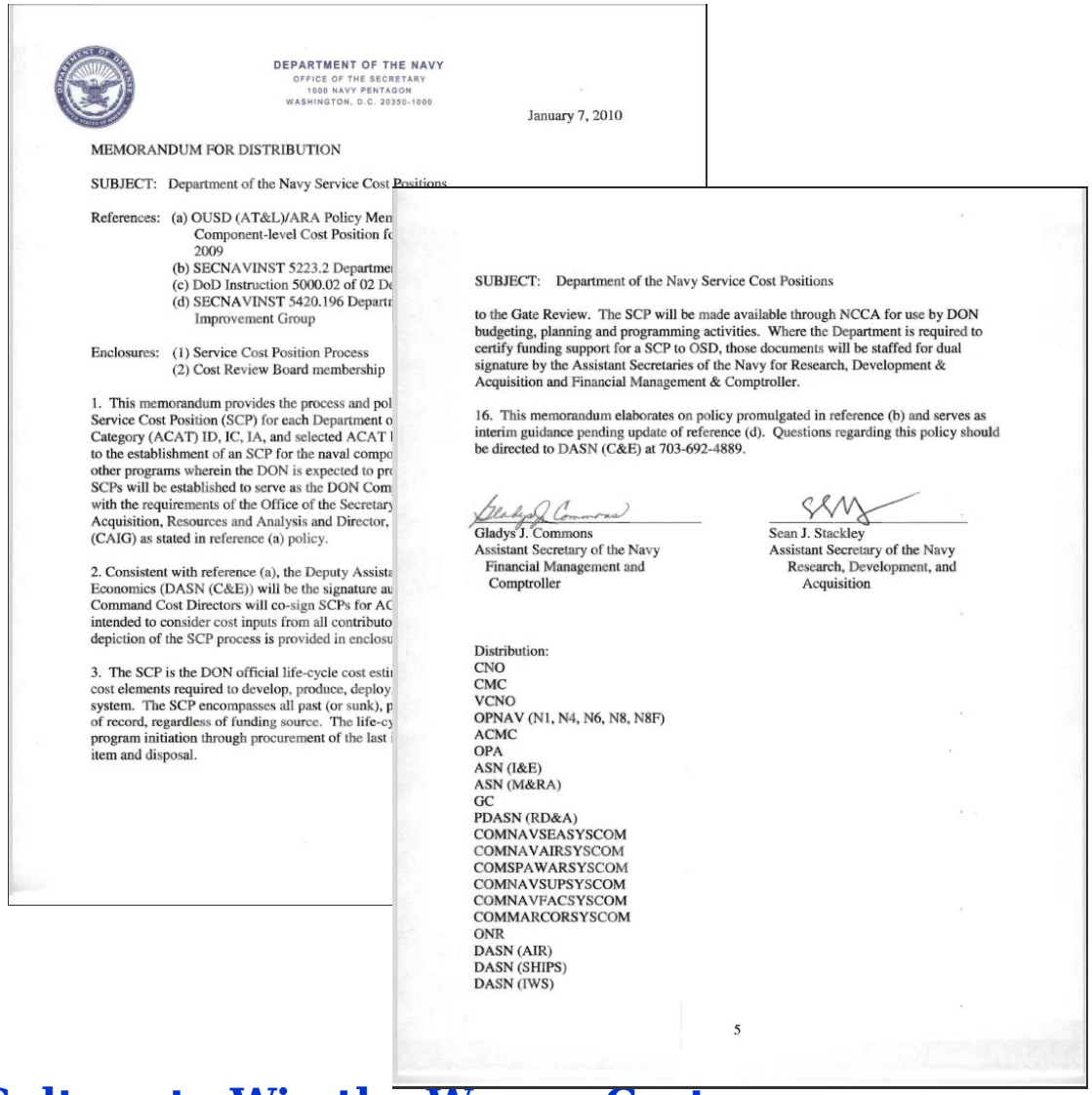
Recent changes to statutory requirements and regulatory requirements in the recent update to DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, make it necessary to strengthen and improve transparency in cost estimation review procedures. As a result, beginning now a signed and documented Component-level cost position will be required for all Milestone (MS) A, B, C and Full Rate Production Decisions for all Major Defense Acquisition Programs (MDAPs). Also, to support statutory certifications and regulatory requirements the Component must fully fund to this cost position in the current President's Budget Future Years Defense Program (FYDP), or commit to full funding of the cost position in the next President's Budget FYDP, with identification of specific offsets to address any funding shortfalls that may exist in the current FYDP. More specifically, we expect the Deputy Assistant Secretaries of the Military Departments for Cost and Economics to sign for the Component-level cost position. We also expect the Service Acquisition Executive and the Chief Financial Officer to endorse and certify that the FYDP fully funds the program consistent with the component cost estimate.

The OSD Cost Analysis Improvement Group (CAIG) is currently updating DoD 5000.4-M, *DoD Cost Analysis Guidance and Procedures*. Among other changes, the update to DoD 5000.4-M will address the new milestone decision authority certifications required in accordance with 10 United States Code, Section 2366, for MS A and MS B approvals. The update will also address modified requirements for preparation of cost

*Component-level Cost Position = DON Service Cost Position*

# DON Service Cost Position Policy

- Memo signed 7 Jan 10 by ASN (RD&A) and ASN (FM&C)
- "The SCP is the DON official Life-Cycle Cost Estimate (LCCE) of all resources and associated cost elements required to develop, produce, deploy, sustain, and dispose of a particular system."
- Establishes Cost Review Boards
- Stakeholder Review of CARD
- Increased insight across all DON equities
  - Requirements
  - Engineering
  - Budgeting and Programming
  - Acquisition, Program Management
  - Cost Estimating
  - TOC/Life Cycle Support Management



DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

January 7, 2010

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Department of the Navy Service Cost Positions

References: (a) OUSD (AT&L)/ARA Policy Men
Component-level Cost Position fo
2009
(b) SECNAVINST 5223.2 Departme
(c) DoD Instruction 5000.02 of 02 De
(d) SECNAVINST 5420.196 Departr
Improvement Group

Enclosures: (1) Service Cost Position Process
(2) Cost Review Board membership

1. This memorandum provides the process and pol
Service Cost Position (SCP) for each Department o
Category (ACAT) ID, IC, IA, and selected ACAT I
to the establishment of an SCP for the naval compo
other programs wherein the DON is expected to pr
SCPs will be established to serve as the DON Com
with the requirements of the Office of the Secretary
Acquisition, Resources and Analysis and Director,
(CAIG) as stated in reference (a) policy.

2. Consistent with reference (a), the Deputy Assista
Economics (DASN (C&E)) will be the signature au
Command Cost Directors will co-sign SCPs for AC
intended to consider cost inputs from all contributo
depiction of the SCP process is provided in enclosu

3. The SCP is the DON official life-cycle cost estir
cost elements required to develop, produce, deploy
system. The SCP encompasses all past (or sunk), p
of record, regardless of funding source. The life-cy
program initiation through procurement of the last
item and disposal.

SUBJECT: Department of the Navy Service Cost Positions

to the Gate Review. The SCP will be made available through NCCA for use by DON budgeting, planning and programming activities. Where the Department is required to certify funding support for a SCP to OSD, those documents will be staffed for dual signature by the Assistant Secretaries of the Navy for Research, Development & Acquisition and Financial Management & Comptroller.

16. This memorandum elaborates on policy promulgated in reference (b) and serves as interim guidance pending update of reference (d). Questions regarding this policy should be directed to DASN (C&E) at 703-692-4889.

Gladys J. Commons
Assistant Secretary of the Navy
Financial Management and
Comptroller

Sean J. Stackley
Assistant Secretary of the Navy
Research, Development, and
Acquisition

Distribution:
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DASN (AIR)
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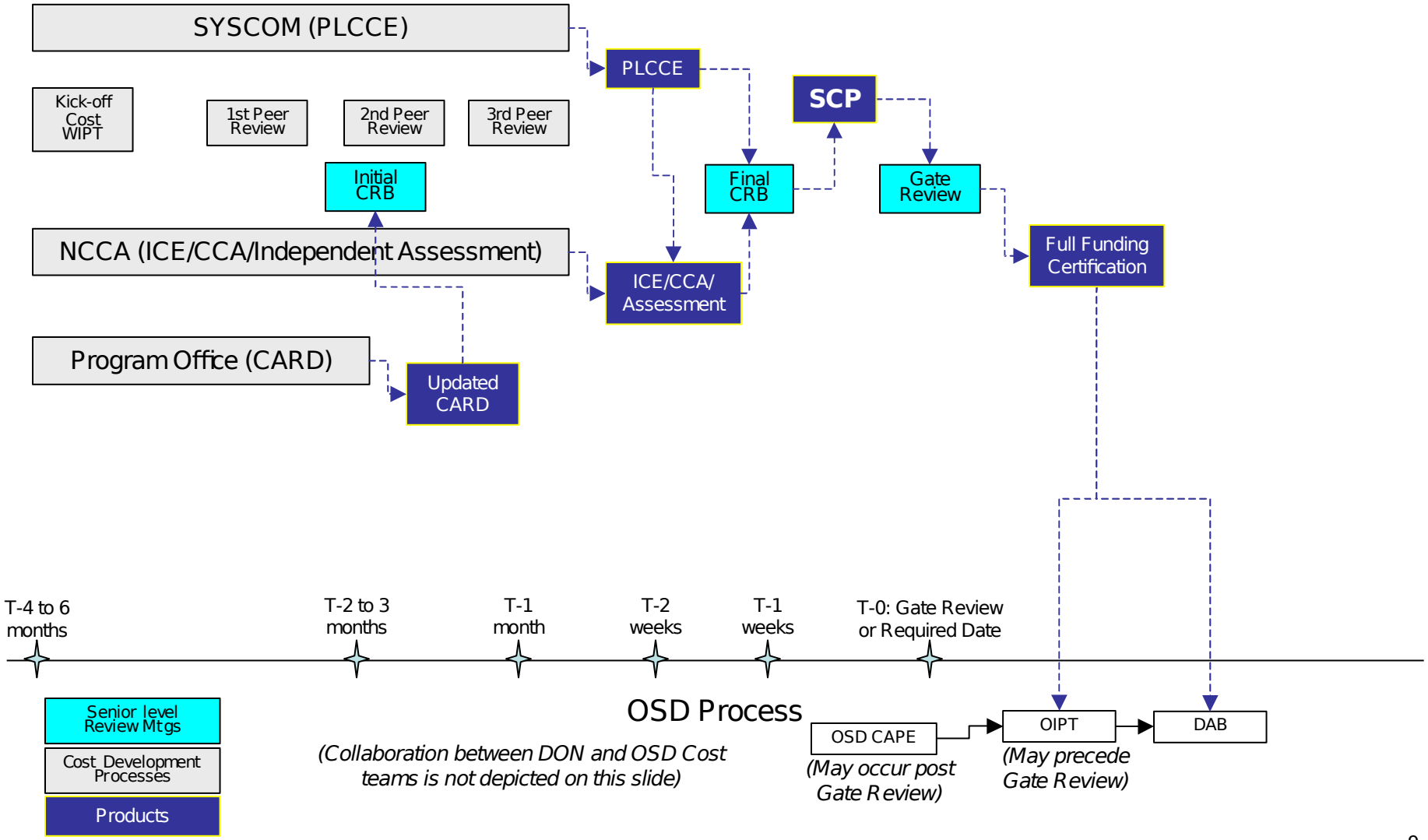
# DON Service Cost Position Process

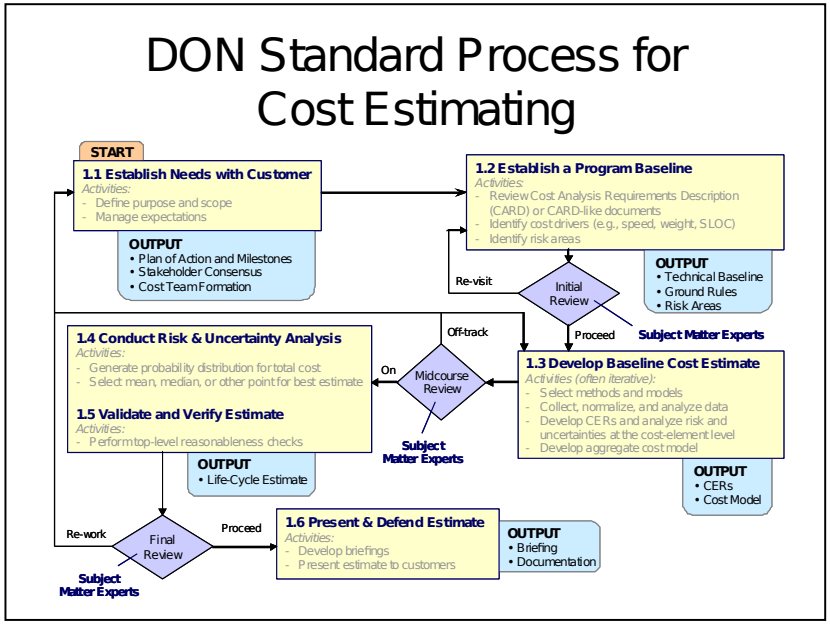


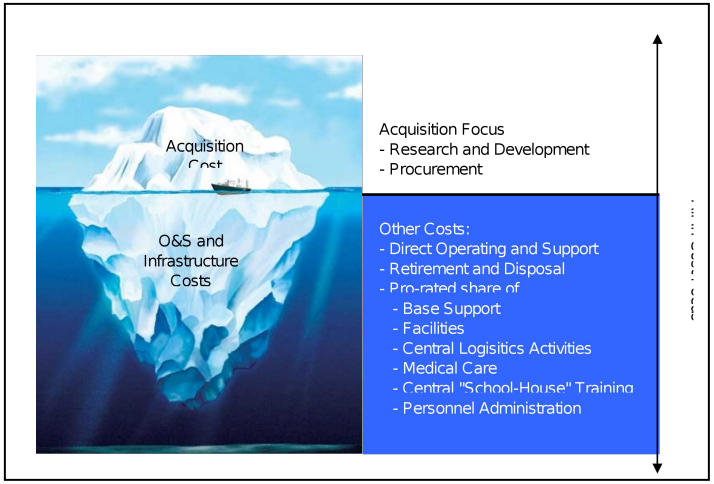
# Cost Review Board Membership

- **Chaired by Deputy Assistant Secretary for Cost & Economics**
- **Principal Members**
  - Office of Program Assessments (OPA)
  - Deputy Assistant Secretary of the Navy for Budget (FMB)
  - Deputy Assistant Secretary of the Navy for the acquisition program
  - Program Executive Officer (PEO) of the program
  - DON Chief Systems Engineer (ASN(RD&A) CHENG)
  - SYSCOM Cost Director
  - For MAIS programs: DON CIO
  - For all Navy programs: OPNAV N80, N8F, N15, N4
  - For C4ISR type programs: OPNAV N2/N6
  - For USMC programs: HQMC Directors of Programs and Fiscal Divisions
- **Advisory Members – other stakeholders as required**

# DON Best Practices & Standards

- **Charted by DON Cost Estimating Stakeholders Group (CESG)**
- **Purpose is to help ensure use of a common-denominator of scientifically sound processes and procedures**
- **Based on seminal work from NAVAIR 4.2, suitably amended to reflect a DON-enterprise point of view**
- **In sync with other guides**
  - NAVSEA's Cost Estimating Handbook
  - GAO's Cost Estimating and Assessment Guide
  - DoD's Defense Acquisition Guidebook
  - NATO's Methods and Models for Life-Cycle Costing
- **Draft released Mar 10 for final comments**

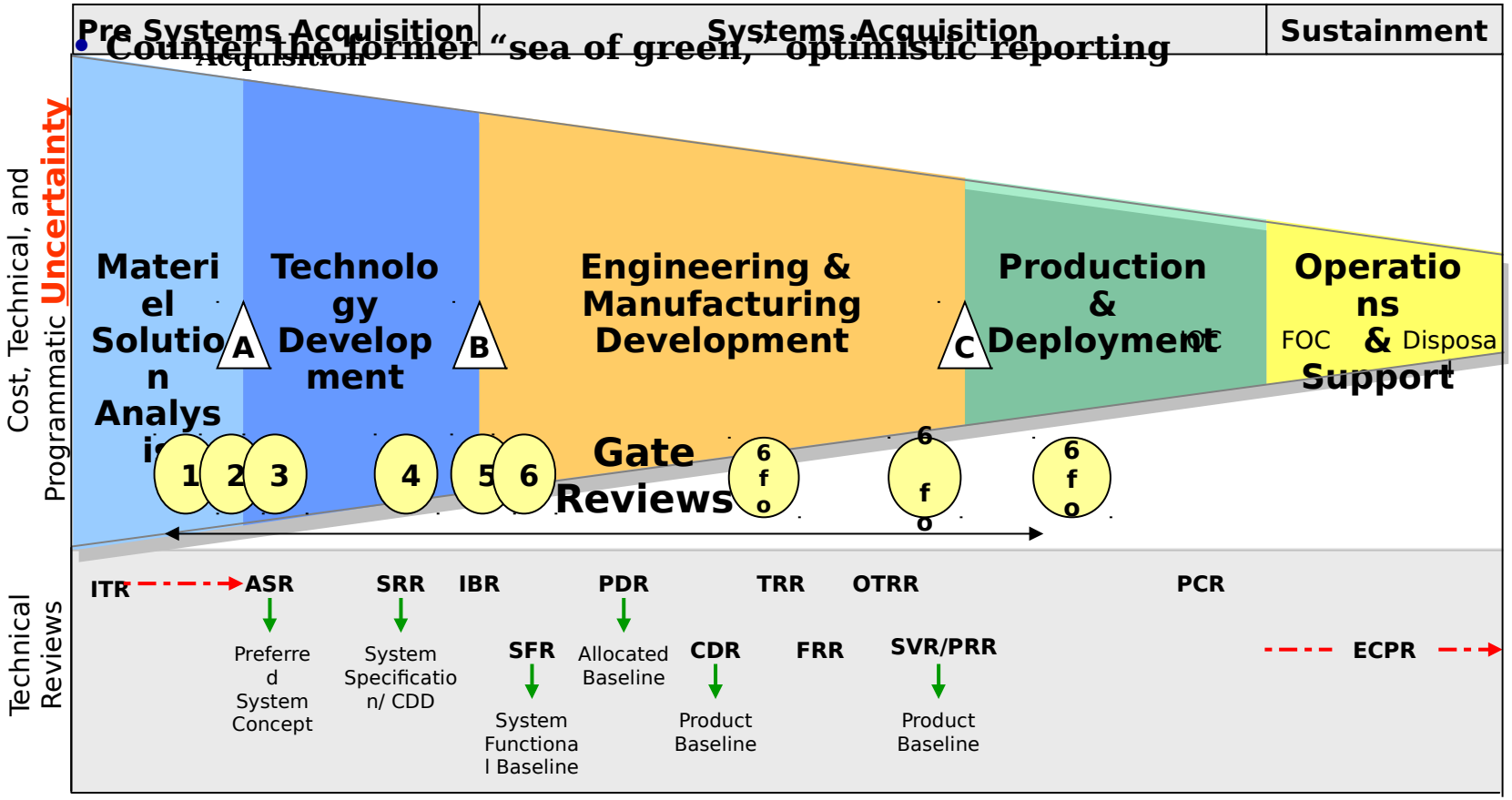



**Changing the Culture to Win the War on Cost**

# Updated Probability of Program Success (PoPS) Metrics for Cost Estimating

- **Cost Estimating PoPS Metrics reported by Program Manager at each Acquisition Gate Review**
- **All metrics overhauled to provide clear and objective reporting standards across all disciplines**
- **Counter the former "sea of green," optimistic reporting**




**Changing the Culture to Win the War on Cost**

# Former PoPS v1.0 Cost Estimating Criteria

| METRIC | CRITERIA | GATE 1 | GATE 2 | GATE 3 | GATE 4 | GATE 5 | GATE 6 |
|---|---|---|---|---|---|---|---|
| COST ESTIMATING | Plan to conduct cost estimates has been developed; all stakeholders actively involved | GREEN - Plan for cost estimates have been developed; all stakeholders involved | | | | | |
| | | YELLOW - Plan for cost estimates are being developed; key stakeholders involved | | | | | |
| | | RED - Plan for cost estimates NOT been developed | | | | | |
| | Cost estimate range to address potential capability alt. have been developed and dropped | GREEN - developed and approved | | | | | |
| | | | | | | GREEN - ahead of schedule | GREEN - ahead of schedule | GREEN - ahead of schedule |
| | | | | behind schedule but not affecting planning/execution | YELLOW - behind schedule but not affecting planning/execution | YELLOW - behind schedule but not affecting planning/execution | YELLOW - behind schedule but not affecting planning/execution |
| | | | ched. & affecting | RED - behind sched. & affecting planning/execution | RED - behind sched. & affecting planning/execution | RED - behind sched. & affecting planning/execution | RED - behind sched. & affecting planning/execution |
| | Cost Estimate confidence level is about 75% | | >75% | >80% | >85% | >90% | >95% |
| | | | 25-75% | 50-80% | 60-85% | 75-90% | 80-95% |
| | | | <25% | <50% | <60% | <75% | <80% |
| | Initial independent CE has been accomplished by an org. outside the PORC. Less than 10% diff. btwn the P.O. and initial ind.cost estimator. Diff. in assumptions and methodologies have been resolved. | | | GREEN: <Less than 10% difference. All diff. have been resolved | GREEN: <Less than 10% difference. All diff. have been resolved | GREEN: <Less than 10% difference. All diff. have been resolved | GREEN: <Less than 10% difference. All diff. have been resolved |
| | | | | YELLOW: 10-30% difference. All diff. are resolvable | YELLOW: 10-30% difference. All diff. are resolvable | YELLOW: 10-30% difference. All diff. are resolvable | YELLOW: 10-30% difference. All diff. are resolvable |
| | | | | RED: >30% difference. All diff are NOT resolvable | RED: >30% difference. All diff are NOT resolvable | RED: >30% difference. All diff are NOT resolvable | RED: >30% difference. All diff are NOT resolvable |

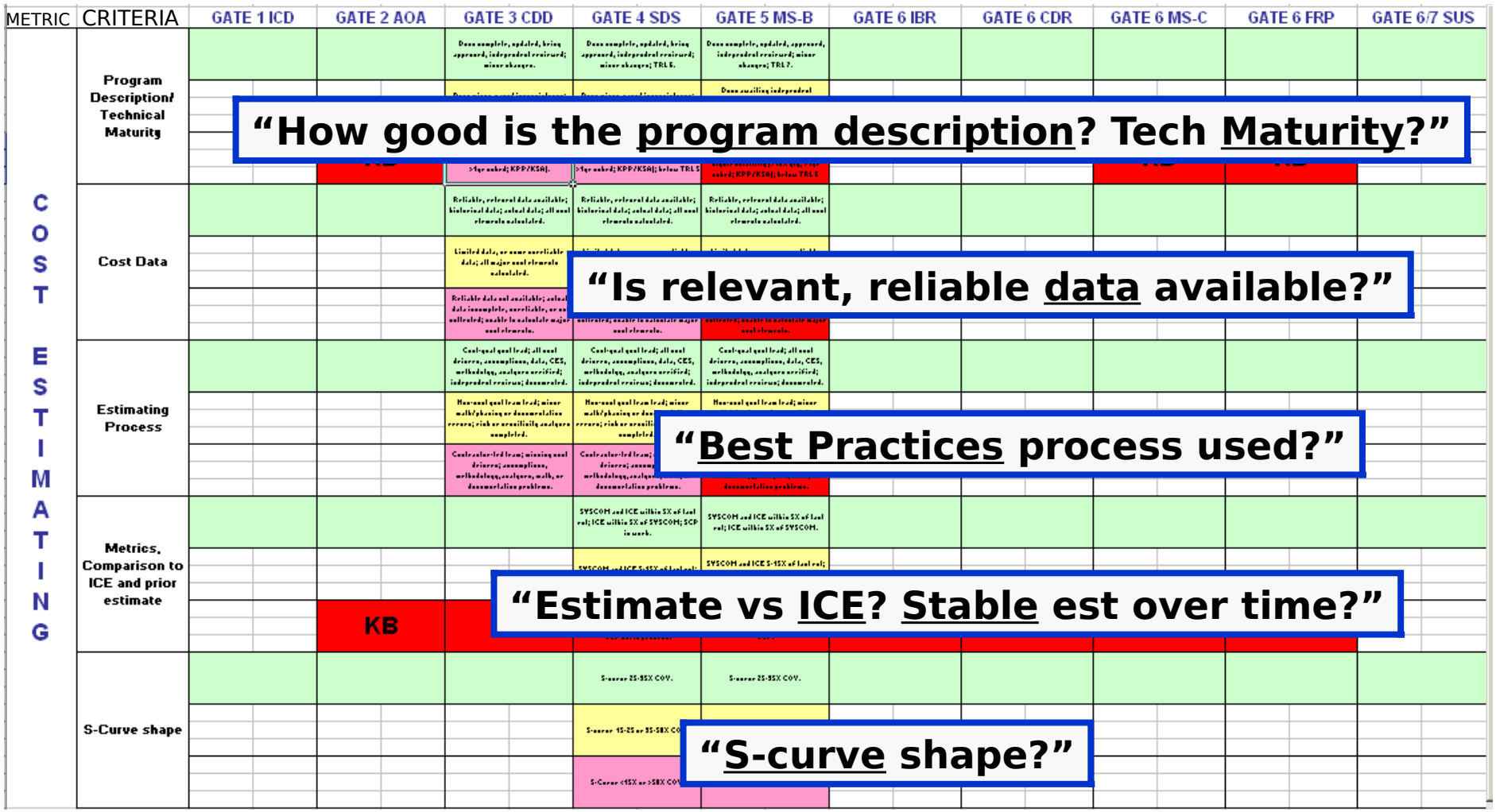
**"Is there a Plan to get an Estimate?"**

**"Confidence Level" is NOT the S-Curve C.I. – It is PM's subjective**

**"Are CE activities on-schedule?"**

78 Criteria had "cost estimating" linkage (across all Gates);

# PoPS v2.0 Approved Cost Estimating Criteria



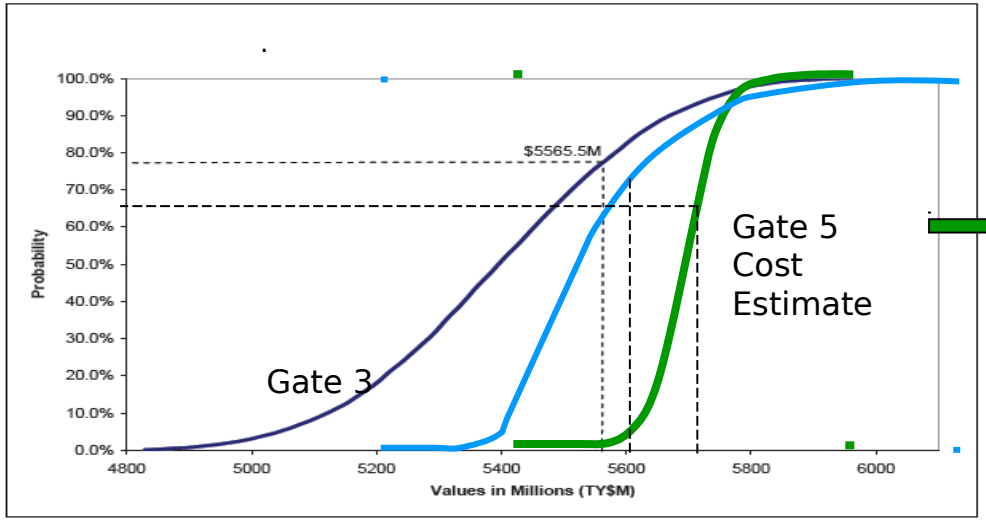

New recommended criteria provide insight into the cost

# POPS v2.0 Additional Cost Estimate Presentation Requirements

Program Planning / Execution

## COST ESTIMATING

S – Curve RDT&E **(one for each appropriation)**




| % tile | $M |
|---|---|
| 90% | $5661M |
| 80% | $5592M |
| 70% | $5522M |
| 60% | $5453M |
| 50% | $5406M |
| 40% | $5337M |
| 30% | $5291M |
| 20% | $5221M |
| 10% | $5129M |

Cost Estimate Completed by:

Notes: Any pertinent information that cannot be readily gathered from the data table above can be included in this text box. It provides an easy method of conveying more details than the data table may allow.

| | CV |
|---|---|
| CI | |
| Gate 3 (Dec 07) 78% | 32.4% |
| Gate 4 (Apr 09) 71% | 28.9% |
| Gate 5 (May 10) 65% | 22.4% |

- **Actual SCP values**
- **Key assumptions**
- **Key cost drivers**
- **Sensitivity analysis**
- **Major cost risk areas**
- **Limitations**
- **Significant uncertainties**

# Naval Cost Integrated Process Team

Mission Statement: Host a government/industry forum to gain an understanding of each parties' perspectives on cost -- with the objective of improving estimates

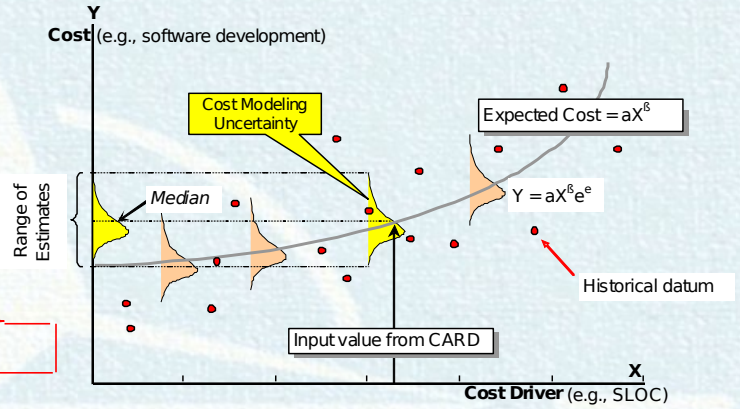
- **Cost IPT Goals:**
  - **Create lines of communication to help with data collection, estimating methods development, understanding technical requirements**
  - **Address common costing issues and challenges**
    - **Inflation**
    - **Software development**
    - **Impact of Pension Protection Act**
    - **New Mil-Std-881 and CCDR reporting requirements**
    - **Contractor Logistics Support**
  - **Foster mutual trust and respect**
  - **Protection of proprietary methods and data**

# NATO / Partnership for Peace Cost Analysis Efforts

## Scope

- Independent Cost Analyses
  - Dutch amphibious transport vessels
    - ✓ HMS Rotterdam
    - ✓ HMS Johan de Witt
  - NATO Alliance Ground Surveillance System (AGS)
  - Canada's Light Armored Vehicle III

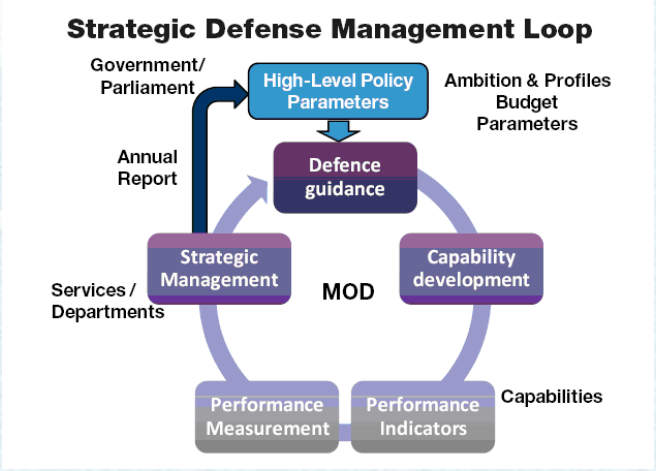
Extra value




- Managing the Enterprise
  - Methods to align programs and portfolios with strategic goals and objectives
  - Governance structure
  - Balance and optimization
  - Lexicon and taxonomy
  - Capability portfolio analysis
    - ✓ Definition and content
    - ✓ Measurement of value (capability)
    - ✓ Role of life-cycle costs

Extra value

Focus of approved Technical Activity Proposal



# Training: BCF Cost Related Courses

## Supports Business-Cost Estimating DAWIA Certification

### Level I Certification

**ACQ 101** Fundamentals of Systems Acquisition Management — 25 hrs, online

**BCF 102** Fundamentals of Earned Value Management — 15 hrs, online

**BCF 103** Fundamentals of Business Financial Management — 26 hours, online

**BCF 106** Fundamentals of Cost Analysis — 40 hrs, online

**BCF 107** Applied Cost Analysis — 5 days classroom

*Knowledge Based*

### Level II Certification

**ACQ 201A** Intermediate Systems Acquisition, Part A — 37 hrs, online

**ACQ 201B** Intermediate Systems Acquisition, Part B — 5 days classroom

**BCF 204** Intermediate Cost Analysis — 10 days classroom

**BCF 206** Cost Risk Analysis — 4 days classroom

**BCF 211** Acquisition Business Management — 5 days classroom

**BCF 215** Operating and Support Cost Analysis — 5 days classroom

**CLB 026** Forecasting Techniques

**CLB 030** Cost Data Sources

*Case Based*

### Level III Certification

**BCF 302** Advanced Concepts in Cost Analysis — 5 days classroom

**CLB 029** Rates

**CLB 023** Software Cost Estimating

*Case Based*

**Level I "Core Plus" Courses & CL Module** *(See DAU iCatalog)*

**Level II "Core Plus" Courses & CL Module** *(See DAU iCatalog)*

**Level III "Core Plus" Courses & CL Module** *(See DAU iCatalog)*

Vers 10

# *Training: Masters Distance Learning Program*

- **Proposed effort to jointly develop a distance learning Master's program in Cost Engineering/Analysis**
  - **NAVSEA 05C, NCCA, Naval Postgraduate School (NPS), and the Air Force Institute of Technology (AFIT)**
    - **Will leverage the AFIT in-residence course material as well as NPS content to provide efficiencies related to curriculum development**
  - **Demand outweighs supply – only known Master's program in cost analysis is offered by AFIT, in residence**
  - **Distance learning mode enables greater flexi workforce to obtain advanced degree**

# *NCCA's Reinvigorated use of Intern and Associate Programs*

- **Naval Acquisition Development Program (NADP) administered by the Naval Acquisition Career Center (NACC)**
  - Naval Acquisition Intern Program (NAIP)
    - Two to three-year program for entry level candidates
  - Naval Acquisition Associates Program (NAAP)
    - Two-year program for journeymen level candidates
- **Navy Career Intern Program (NCIP)**
  - Localized, flexible
  - Tailorable to NCCA's needs

# Current Challenges

- Increased Workload Requirements for Cost Community
  - SECNAV Policy adds additional responsibilities
  - Total impacts of WSARA not yet certain for the military components' cost groups
- Organizational/Personnel Issues
  - Current on-board strengths inadequate to execute increased workload in specified timeframes
  - Lead time for identifying "right skill set" candidates and completing hiring activities is problematic
  - Shortage of available trained cost analysts -- must "grow our own"
- Major culture change requires openness, communication, and data sharing between all stakeholders